

# INTERNATIONAL SEARCH REPORT

International Application No

PL, GB2004/004263

A. CLASSIFICATION OF SUBJECT MATTER  
IPC 7 F42B1/032 F42B3/28

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 F42B

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 6 371 219 B1 (COLLINS WILLIAM R ET AL) 16 April 2002 (2002-04-16) column 2, line 42 - column 3, line 60; figure 2	1-21,27, 28
X	EP 1 348 683 A (ALLIANT TECHSYSTEMS INC) 1 October 2003 (2003-10-01) paragraphs [0002], [0013], [0014], [0022]; figure 1a	1-21,27, 28
X	EP 1 241 433 A (HALLIBURTON ENERGY SERVICES, INC) 18 September 2002 (2002-09-18) paragraph [0021]; figure 2	1-4, 10-21, 27,28



Further documents are listed in the continuation of box C.



Patent family members are listed in annex.

\* Special categories of cited documents :

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier document but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&" document member of the same patent family

Date of the actual completion of the international search

9 May 2005

Date of mailing of the international search report

11 AUG. 2005

Name and mailing address of the ISA

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PCT/GB2004/004263

## Box II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:  
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☐ Claims Nos.:  
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
3. ☐ Claims Nos.:  
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

## Box III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☒ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

1-21, 27, 28

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-21,27,28

a component, a shaped charge perforator comprising such component, a perforator gun comprising such shaped charge and a method of improving fluid outflow from a well borehole by means of such a perforator gun.

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2. claim: 22

a compound for use in manufacture of components for shaped charge perforators.

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3. claims: 23-26

a manufacturing method for a component for a shaped charge perforator.

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4. claims: 29-31

a liner for a shaped charge perforator.

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# INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PC B2004/004263

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 6371219	B1	16-04-2002	NONE
EP 1348683	A	01-10-2003	US 2004020397 A1 05-02-2004 EP 1348683 A2 01-10-2003 JP 2004002167 A 08-01-2004
EP 1241433	A	18-09-2002	US 2002129724 A1 19-09-2002 CA 2376565 A1 16-09-2002 EP 1241433 A2 18-09-2002 WO 02075099 A2 26-09-2002